

powder can be loaded in several different file formats including Siemens, Philips, Sietronics CPI and XY (angle, intensity) format. The optional display of the difference plot and the agreement factors supports the goodness-of-fit visually. A message box shows important R-values during the refinement process. A comparison of R-values before and after the refinement is possible on the result screen. The diagrams can be saved or exported in \*.wmf format using the Windows clipboard.

**PowderCell** is free of charge and can be downloaded from the following Web site:

[http://www.bam.de/a\\_v/v\\_1/powder/e\\_cell.html](http://www.bam.de/a_v/v_1/powder/e_cell.html)

The program, all essential data, and some example files of crystal structures are included in the compressed file. Because of the intensive calculations during refinement, a PC with Pentium CPU is recommended.

## Acknowledgments

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Müller, U. (1994). "Relations between Wyckoff positions among crystallographic group-subgroup relations," *Suppl. Issue No. 8, XV. European Crystallographic Meeting, Dresden, 28. August-2. September, Book of Abstracts, Z. Krist.*, 203.

Young, R. A. (1995). *IUCr Monographs on Crystallography: The Rietveld Method* (Oxford University Press, Oxford), 3rd ed.

## Calendar of Meetings

Donald R. Petersen  
Greenleaf Associates  
6210 Siebert Street  
Midland, MI 48640-2724

### 23–29 January 1999

**23rd Annual Conference on Composites, Advanced Ceramics, Materials and Structures.** Cocoa Beach, Florida, USA. [Contact: American Ceramic Society, Post Office Box 6136, Westerville, OH 43086-6136, USA. Fax: 1.614.794.5882; E-mail: [customersrvc@acers.org](mailto:customersrvc@acers.org); Info: <http://www.acers.org>].

### 8–12 February 1999

**AXAA99 Eleventh National Workshops and Conference of the Australian X-ray Analytical Association: Analytical X-rays for Industry and Science.** Parkville (near Melbourne) Victoria, Australia. Held at the Victorian College of Pharmacy. Emphasis on XRD, XRF, and X-ray surface analysis. February 8–9 devoted to workshops, February 10–12 to the conference proper. [Contact: Dr. Mick Gould, 13 Jeffrey Street, Mt. Waverley, Vic. 3149, Australia. Tel: 61.3.9887.8003; Fax: 61.3.9887.8773; E-mail: [ca@netwide.com.au](mailto:ca@netwide.com.au); Info: <http://www.latrobe.edu.au/www/axaa>].

### 28 February–4 March 1999

**128th Annual Meeting and Exhibition: The Minerals, Metals and Materials Society (TMS).** San Diego, California, USA. [Contact: TMS, 420 Commonwealth Drive, Warrendale, PA 15086-7514, USA. Tel: 1.724.776.9000; Fax: 1.724.776.3770; E-mail: [tmsgeneral@tms.org](mailto:tmsgeneral@tms.org); Info: <http://www.tms.org>].

### 8–10 March 1999

**7. Jahrestagung der Deutschen Gesellschaft für Kristallographie.** Leipzig, Germany. [Contact: Frauen B. Kahnt, H. Schwarzer, Universität Leipzig, Institut für Mineralogie, Kristallographie, und Materialwissenschaft, Schornhorststrasse 20, D-04275 Leipzig, Germany. Tel: 49.341.973.6250; Fax: 49.341.973.6299; E-mail: [dgk99@rz.uni-leipzig.de](mailto:dgk99@rz.uni-leipzig.de); Info: <http://www.uni-leipzig.de>].

### 15–19 March 1999

**International Centre for Diffraction Data, Spring Meeting.** Newtown Square, Pennsylvania, USA. Annual membership meeting. [Contact: Linda Shertz, International Centre for Diffraction Data, 12 Campus Boulevard, Newtown Square, PA 19073-3273, USA. Tel: 1.610.325.9814; Fax: 1.610.325.9823; E-mail: [shertz@icdd.com](mailto:shertz@icdd.com); Info: <http://www.icdd.com>].

## 20–26 March 1999

**Centennial Meeting of the American Physical Society.** Atlanta, Georgia, USA. [Contact: APS Meetings Department, One Physics Ellipse, College Park, MD 202740-3844, USA. Tel: 1.301.209.3286; Fax: 1.301.209.0866; E-mail: meetings@aps.org; Info: <http://www.aps.org/centennial>].

## 28 March–1 April 1999

**EUG10 Tenth Biennial Meeting of the European Union of Geosciences.** Strasbourg, France. [Contact: European Union of Geosciences at EOST, 5 rue René Descartes, F-67084 Strasbourg Cedex, France. Tel: 33.3.8841.6393; Fax: 33.3.8860.3887; E-mail: eug@eost.u-strasbg.fr; Info: <http://eost.u-strasbg.fr/eug>].

## 5–9 April 1999

**Spring Meeting of the Materials Research Society.** San Francisco, California, USA. [Contact: Materials Research Society, 506 Keystone Drive, Warrendale, PA 15089-7573, USA. Tel: 1.724.779.3004; Fax: 1.724.779.8313; E-mail: info@mrs.org; Info: <http://www.mrs.org>].

## 25–28 April 1999

**101st Annual Meeting of the American Ceramic Society.** Indianapolis, Indiana, USA. [Contact: Technical Program Coordinator, American Ceramic Society, Post Office Box 6136, Westerville OH 43086-6136, USA. Fax: 1.614.794.5882; E-mail: customersrv@acers.org; Info: <http://www.acers.org>].

## 4–7 May 1999

**16th International Symposium on Combining Data from Different Sources.** Ottawa, Ontario, Canada. The symposium will cover a spectrum of issues, including prerequisites and techniques for combining data from different sources, methods for analysis of such data, problems concerning quality and estimation, and current and possible applications. There will be two half-day workshops, on calibration and meta-analysis. [Contact: Christian Thibault, Statistics Canada, Tunney's Pasture, Ottawa, Ont. K1A 0T6, Canada. Tel: 1.613.951.6935; Fax: 1.613.951.3100; E-mail: thibchr@statcan.ca; Info: <http://www.statcan.ca/english/conferences/symposium99/index.htm>].

## 17–20 May 1999

**SAS-99 Eleventh International Conference on Small Angle Scattering.** Upton, New York, USA. Held at the Brookhaven National Laboratory. [Contact: Ann Emrick, Biology Department 463, Brookhaven National Laboratory, Upton, NY 11973-5000, USA. Tel: 1.516.344.5756; Fax: 1.516.344.6398; E-mail: emrick@bnl.gov; Info: <http://sas99.bnl.gov>].

## 22–27 May 1999

**ACA'99 American Crystallographic Association Annual Meeting** in conjunction with the **American Association for**

**Crystal Growth.** Buffalo, New York, USA. Held at the Buffalo Convention Center. [Contact: Marcia Colquhoun (Registrar) American Crystallographic Association, Post Office Box 96 Ellicott Station, Buffalo, NY 14203-0096, USA. Tel: 1.716.856.9600; Fax: 1.716.852.4846; E-mail: marcia@hwi.buffalo.edu; Info: <http://www.hwi.buffalo.edu/aca>].

## 26–28 May 1999

**Joint Annual Meeting, Geological Association of Canada and Mineralogical Association of Canada.** Sudbury, Ontario, Canada. [Contact: Prof. P. Copper, Department of Earth Sciences, Laurentian University, Sudbury, Ont. P3E 2C6, Canada. Tel: 1.705.675.1151; Fax: 1.705.675.4898; E-mail: gacmac@nickel.laurentian.ca].

## 6–10 June 1999

**Industrial Applications of Neutron Scattering and Facilities.** Boston, Massachusetts, USA. [Contact: Dr. Aslam Lone, Station E4 AECL, Chalk River, Ont. K0J 1J0, Canada. Tel: 1.613.584.8811, x5287; Fax: 1.613.584.8047; E-mail: lonea@aecl.ca]. This is a special session within the **1999 Spring Meeting of the American Nuclear Society.** [Contact: American Nuclear Society, 555 Kensington Avenue, LaGrange, IL 60526, USA. Tel: 1.708.352.6611; Fax: 1.708.352.0499; Info: <http://www.ans.org/meetings>].

## 26 June–1 July 1999

**36th Annual Meeting, Clay Minerals Society.** West Lafayette, Indiana, USA. [Contact: Prof. Cliff Johnston, Department of Agronomy, 1150 Lilly Hall, Purdue University, West Lafayette, IN 47907-1150, USA. Tel: 1.765.496.1716; Fax: 1.765.496.2926; E-mail: clays@purdue.edu; Info: <http://shadow.agry.purdue.edu/clay/claymin/cms1999/purdue1999.html>].

## 28 June–2 July 1999

**Ninth International Symposium on Nondestructive Characterization of Materials.** Darling Harbor (near Sydney) Australia. [Contact: Ms. Debby Manley, Center for Nondestructive Evaluation, 102 Maryland Hall, Johns Hopkins University, Baltimore, MD 21218, USA. Tel: 1.410.516.7126; Fax: 1.410.516.7249; E-mail: cnde@jhu.edu; Info: <http://www.cnde.com>].

## 5–9 July 1999

**ICCM-12 Twelfth International Conference on Composite Materials.** Paris, France. Held in the Palais des Congrès de Paris. [Contact: ICCM-12 Conference Secretariat, MTE Boîte Postale 298, F-33605 Pessac, France. Tel: 33.5.5726.5342; Fax: 33.5.5726.5343; E-mail: orga@iccm12.org; Info: <http://www.iccm12.org>].

## 26–30 July 1999

**ICSOS-6 Sixth International Conference on Structure of Surfaces.** Vancouver, British Columbia, Canada. Held at the University of British Columbia. [Contact: ICSOS-6 Secretariat, UBC Conference Center, 5961 Student Union Boulevard, Vancouver, B. C. V6T 2C9, Canada, or Keith A. R. Mitchell, Department of Chemistry, University of British Columbia, Vancouver, B. C. V6T 1Z1, Canada. Tel:

1.604.822.5831; Fax: 1.604.822.2847; E-mail: karm@chem.ubc.ca; Info: <http://www.conferences.ubc.ca/conferences/events/icsos/icsos.htm>].

#### 1–6 August 1999

**ACCGE-11 Eleventh American Conference on Crystal Growth and Epitaxy.** Tucson, Arizona, USA. At Loews Ventana Canyon Resort. Related short course on Crystal Growth, July 31–August 1, same site. [Contact: Tony Gentile, ACCG-11 Secretariat, Post Office Box 3233, Thousand Oaks, CA 91359-0233, USA; Tel: 1.805.492.7047; Fax: 1.805.492.4062; E-mail: aacg@lafn.org; Info: <http://www.aml.arizona.edu/aacg/conferences/acge11/acge11.html>].

#### 2–6 August 1999

**48th Annual Denver X-ray Conference.** Steamboat Springs, Colorado, USA. Held at the Sheraton Steamboat Resort. [Contact: Denise Flaherty, International Centre for Diffraction Data, 12 Campus Boulevard, Newtown Square, PA 19073-3273, USA. Tel: 1.610.325.9814; Fax: 1.610.325.9823; E-mail: dxc@icdd.com; Info: <http://www.dxcicdd.com>].

#### 4–13 August 1999

**18th IUCr General Assembly and International Congress of Crystallography.** Glasgow, Scotland, UK. Satellite meetings in connection with the Congress will include: Synchrotron Radiation (From Source to Science) Structural and Dynamic Aspects of Molecular and Ionic Solids Using Neutrons, Cambridge Crystallographic Database, and the Crystallographic Computing School, convened at various sites. The conference proper will be held at the Scottish Exhibition and Conferences Centre in Glasgow. [Contact: Dr. C. J. Gilmore, Department of Chemistry, University of Glasgow, Glasgow G12 8QQ, UK. Tel: 44.141.339.8855; Fax: 44.141.330.4419; E-mail: iucr99@chem.gla.ac.uk or Prof. J. A. K. Howard, University of Durham, Department of Chemistry, South Road, Durham DH1 3LE, UK. Tel: 44.191.374.4647; Fax: 44.191.374.3745; E-mail: j.a.k.howard@durham.ac.uk; Info: <http://www.chem.gla.ac.uk/iucr99>].

#### 23–27 August 1999

**X-99 18th International Conferences on X-ray and Inner-shell Processes.** Chicago, Illinois, USA. [Contact: X-99 Conference Office, Physics Division/203-G122, Argonne National Laboratory, Argonne, IL 60439-4843, USA. Tel: 1.630.252.4044; Fax: 1.630.252.2864; E-mail: x99@anl.gov; Info: <http://www.phy.anl.gov/x99>].

#### 1–4 September 1999

**European Conference on Neutron Scattering.** Budapest, Hungary. [Contact: Tamas Grosz, Research Institute for Solid State Physics of the Hungarian Academy of Sciences, Neutron Physics Department, Post Office Box 49, H-1525 Budapest, Hungary. Tel: 36.1.395.9220; Fax: 36.1.395.9165].

#### 4–8 September 1999

**Euroclay'99 Conference of the European Clay Groups Association.** Kraków, Poland. Held at the University of Min-

ing and Metallurgy. A related two-day Workshop will be held following the meeting, in Banska Stiavnica, Slovakia. [Contact: Mrs. Aka Srodon, Euroclay'99, Institute of Geological Sciences PAN, Senacka 1, 31-002 Kraków, Poland. Tel: 48.12.422.8920; Fax: 48.12.422.1609; E-mail: ndsrodon@cyr-kr.edu.pl; Info: [http://www.ing-pan.krakow.pl/e\\_clay/first.htm](http://www.ing-pan.krakow.pl/e_clay/first.htm)].

#### 12–17 September 1999

**Sixth International Conference on Surface X-ray and Neutron Scattering.** Noordwijkerhout, The Netherlands. Held at the conference center Leewenhorst. Attendance is limited. [Contact: 6SXNS Secretariat, Philips Research Laboratories WB33, Prof. Holstlaan 4, 5656 AA Eindhoven, The Netherlands. Tel: 31.40.274.4551; Fax: 31.40.274.5002; E-mail: mfrankn@natlab.research.philips.com; Info: <http://www.research.philips.com/sxns/firs.html>].

#### 20–24 September 1999

**ICQ7'99 Seventh International Conference on Quasicrystals.** Stuttgart, Germany. At the University of Stuttgart (Vaihingen Campus.) [Contact: ICQ7 Secretariat, Universität Stuttgart, Institut für Theoretische und Angewandte Physik, D-70550 Stuttgart, Germany. Tel: 49.711.685.5253; Fax: 49.711.685.5271; E-mail: icq7@itap.physik.uni-stuttgart.de; Info: <http://icq7.uni-stuttgart.de>].

#### 27–29 September 1999

**ICDD: Pharmaceutical X-ray Powder Symposium.** Newtown Square, Pennsylvania, USA. [Contact: Jeanne Ginsburg, International Centre for Diffraction Data, 12 Campus Boulevard, Newtown Square, PA 19073-3274, USA. Tel: 1.610.325.9814; Fax: 1.610.325.9823; E-mail: ginsburg@icdd.com; Info: <http://www.icdd.com>].

#### 24–29 October 1999

**26th Annual Conference of the Federation of Analytical Chemistry and Spectroscopy Societies**, in conjunction with the **46th International Conference on Analytical Sciences and Spectroscopy.** Vancouver, British Columbia, Canada. [Contact: Prof. Michael Blades, Department of Chemistry, University of British Columbia, Vancouver, B. C. V6T 1A1, Canada. Tel: 1.604.822.4468; E-mail: blades@chem.ubc.ca or FACSS, 1201 Don Diego Avenue, Santa Fe, NM 87505, USA. Tel: 1.505.820.1648; Fax: 1.505.989.1073; Info: <http://facss.org/info.htm>].

#### 14–19 November 1999

**Eastern Analytical Symposium.** Somerset, New Jersey, USA. At the Garden State Convention Center. [Contact: Eastern Analytical Symposium, Post Office Box 633, Monchanin, DE 19710-0633, USA. Tel: 1.302.738.6218; Fax: 1.302.738.5275; Info: <http://www.eas.org>].

#### 29 November–3 December 1999

**Fall Meeting of the Materials Research Society.** Boston, Massachusetts, USA. [Contact: Materials Research Society, 506 Keystone Drive, Warrendale, PA 15086-7573, USA. Tel: 1.724.779.3004; Fax: 1.724.779.8313; E-mail: info@mrs.org; Info: <http://www.mrs.org>].